

60,246-336
10884/CAR017976

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows. This listing of claims will replace all prior listings.

1. (CURRENTLY AMENDED) A method of controlling computer control of an HVAC system comprising the steps of:

- (1) inferring whether a stage of an HVAC component is a failed stage from a relationship between the temperature of the controlled area and a time period; and
- (2) removing the failed stage detected in said step (1) from a staging sequence.

2. (ORIGINAL) A method as recited in claim 1, wherein said step (1) further comprises the step of:

communicating a health status of the HVAC component to a controller.

3. (ORIGINAL) A method as recited in claim 1, wherein said step (1) further comprises the step of:

determining whether a communication link exists between the HVAC component and a controller.

4. (ORIGINAL) A method as recited in claim 1, wherein said step (1) further comprises the step of:

communicating a temperature of a controlled area to a controller.

5. (CANCELED)

60,246-336
10884/CAR017976

6. (CURRENTLY AMENDED) ~~A method as recited in claim 5, wherein said step (b) further comprises the step of:~~ (a) ~~monitoring a slope of the relationship between the temperature of the controlled area and the time period.~~

A method of computer control of an HVAC system comprising the steps of:

- (1) inferring whether a stage of an HVAC component is a failed stage by:
 - (a) monitoring a temperature of a controlled area;
 - (b) monitoring a slope of the relationship between the temperature of the controlled area and the time period
 - (c) inferring whether the stage has failed from a relationship between the temperature of the controlled area and a time period; and
- (2) removing the failed stage detected in said step (1) from a staging sequence.

7. (CURRENTLY AMENDED) ~~A method as recited in claim 5, wherein said step (b) further comprises the step of:~~

~~(a) monitoring a rate of change of a relationship between the temperature of the controlled area and the time period.~~

A method of computer control of an HVAC system comprising the steps of:

- (1) inferring whether a stage of an HVAC component is a failed stage;
 - (a) monitoring a temperature of a controlled area;
 - (b) monitoring a rate of change of a relationship between the temperature of the controlled area and the time period.
 - (c) inferring whether the stage has failed from a relationship between the temperature of the controlled area and a time period; and
- (2) removing the failed stage detected in said step (1) from a staging sequence.

60,246-336
10884/CAR017976

8. (ORIGINAL) A method as recited in claim 1, further comprising the steps of:
 - (a) periodically attempting communication with the failed stage;
 - (b) identifying whether the failed stage has become functional; and
 - (c) returning the failed stage to the staging sequence in response to said step (b).
9. (ORIGINAL) A method as recited in claim 8, wherein said step (b) further comprising the step of:
 - (i) identifying a positive communication with the failed stage.
10. (CURRENTLY AMENDED) A method of ~~controlling computer control of~~ an HVAC system comprising the steps of:
 - (1) monitoring a rate of change of a relationship between a temperature of a controlled area and a time period for a first stage of an HVAC component;
 - (2) determining whether the first stage is a failed stage in response to said step (1); and
 - (3) removing the failed stage determined in said step (2) from a staging sequence.
11. (ORIGINAL) A method as recited in claim 10, wherein said step (1) further comprises the step of:
determining whether the rate of change is greater than a prior rate of change of a prior stage of the HVAC component.

60,246-336
10884/CAR017976

12. (CURENTLY AMENDED) ~~A method as recited in claim 10, wherein said step (1) further comprises the step of:~~

A method of computer control of an HVAC system comprising the steps of:

(1) monitoring a rate of change of a relationship between a temperature of a controlled area and a time period for a first stage of an HVAC component and comparing the rate of change to a stored rate of change for the first stage;

(2) determining whether the first stage is a failed stage in response to said step (1);
and

(3) removing the failed stage determined in said step (2) from a staging sequence.

13. (ORIGINAL) A method as recited in claim 12, further comprises the step of:
inputting the stored rate of change into a controller which communicates with the HVAC component.

14. (ORIGINAL) A method as recited in claim 12, further comprises the step of:
learning the stored rate of change over a multiple of cycles of the first stage.

15. (ORIGINAL) A method as recited in claim 14, further comprises the step of:
determining a configuration of the HVAC component in response to learning the stored rate of change of a multiple of stages comprising the first stage.

16. (ORIGINAL) A method as recited in claim 14, further comprises the step of:
incorporating a gain into a control algorithm for the first stage in response to the stored rate of change to obtain a desired rate of change.

17. (ORIGINAL) A method as recited in claim 14, further comprises the step of:
relating a recovery time period to the stored rate of change to achieve a designated temperature at a desired time.

60,246-336
10884/CAR017976

18. (CURRENTLY AMENDED) A method of controlling computer control of an HVAC system comprising the steps of:

- (1) monitoring a first rate of change of a first relationship between a temperature of a controlled area and a first time period for a first stage of an HVAC component;
- (2) monitoring a second rate of change of a second relationship between the temperature of the controlled area and a second time period for a second stage of the HVAC component;
- (3) determining whether the second stage is a failed stage in response to said steps (1) and (2); and
- (4) removing the failed stage determined in said step (3) from a staging sequence.

19. (ORIGINAL) A method as recited in claim 18, further comprises the step of: determining a configuration of the HVAC component in response to said steps (1) and (2).

20. (ORIGINAL) A method as recited in claim 18, wherein said step (3) further comprises the step of:

determining if the second rate of change is less than the first rate of change; and
determining that the second stage is a failed stage.

21 (CURRENTLY AMENDED) A method of controlling computer control of an HVAC system comprising the steps of:

- (1) inferring whether a stage of an HVAC component is a failed stage from a relationship between the temperature of the controlled area and a time period; and
- (2) removing the failed stage detected in said step (1) from a staging sequence.